Patent Claims

1. A plug-in connector (1), in particular for airbag retaining systems comprising

a first housing (2, 3), which can be locked in a mating connector (7) by means of locking arms (4a,4b), and

a secondary locking mechanism (5) able to be loaded with a spring force, in which

the secondary locking mechanism (5) has tongues (6a, 6b), which block the locking arms (4a, 4b) after they are engaged in the mating connector (7), as well as detent arms (8a, 8b), which are blocked by one edge (9) of the mating connector (7) during the introduction process, until the locking arms (4a, 4b) are engaged,

is hereby characterized in that

the locking arms (4a, 4b) then slide off the edge (9) due to the spring force that has been previously built up and press the secondary locking mechanism (5) into its final position,

wherein the detent arms (8a, 8b) have beveled catch pieces (11a, 11b) on their free ends.

2. A plug-in connector (1), in particular for airbag retaining systems comprising

a first housing (2, 3), which can be locked in a mating connector (7) by means of locking arms (4a, 4b), and

a secondary locking mechanism (5) able to be loaded with a spring force, in which

the secondary locking mechanism (5) has tongues (6a, 6b), which block the locking arms (4a, 4b) after they are engaged in the mating connector (7), as well as detent arms (8a, 8b), which are blocked by one edge (9) of the mating connector (7) during the introduction process, until the locking arms (4a, 4b) are engaged,

is hereby characterized in that

the locking arms (4a, 4b) then slide off the edge (9) due to the spring force that has been previously built up and press the secondary locking mechanism (5) into its final position, wherein ramps on a part of the first housing (3) move the detent arms (8a, 8b) away from edge (9) just before the complete compressing of helical springs (10a-10d).

3. The plug-in connector (1) according to claim 1 or 2, further characterized in that the secondary locking mechanism (5) is supported on housing (2, 3) by means of at least one helical spring (10a-10d), wherein the helical spring or springs (10a-10d) is or are relieved of strain when the plug-in connector (1) is not plugged in as well as when it is plugged in.

4. The plug-in connector (1) according to claim 3, further characterized in that the detent arms (8a, 8b) are shaped like a pair of tuning forks with catch pieces (11a, 11b) protruding outward.

5. The plug-in connector (1) according to one of claims 2 to 4, further characterized in that the housing (2, 3) has a connecting half (3) and a back half (2), which can be locked with one another and in which the secondary locking mechanism (5) with helical springs (10a-10d) is disposed.

6. The plug-in connector (1) according to one of the preceding claims, further characterized in that the secondary locking mechanism (5) has pieces (13a, 13b) running crosswise to the plugging-in direction on opposite-lying sides, and these pieces engage in corresponding slots of a detaching aid (12) surrounding the housing (2, 3) at least partially, and the secondary locking

mechanism (5) can be pulled out of mating connector (7) by this aid against the force of springs (10a-10d) and then the housing (2, 3) can be detached from mating connector (7) in the state where the secondary lock is no longer engaged.